NEW MEXICO
ENVIRONMENT DEPARTMENT

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Governor
JOHN A. SANCHEZ
Lieutenant Governor

RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

Certified Mail – Return Receipt Requested

May 13, 2016

Honorable Mark Hatzenbuhler, Mayor
Village of Cuba
P.O. Box 426
Cuba, New Mexico 87013-0426

Re: Village of Cuba Wastewater Treatment Plant; Minor Municipal; Individual Permit; SIC 4952; NPDES Compliance Evaluation Inspection; NM0024848; April 20, 2016

Dear Mayor Hatzenbuhler:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Racquel Douglas
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
Fountain Place
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Erin Trujillo at 505-827-0418 or at erin.trujillo@state.nm.us.

Sincerely,

/s/Bruce J. Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Racquel Douglas, USEPA (6EN-WM) by e-mail
Brent Larsen and Tung Nguyen, USEPA (6WQ-PP) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
Bill Chavez, NMED District I by e-mail

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
N	NM0002484	160411	C	S	1

Remarks: MINOR MUNICIPAL WWTP

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
	1	N	N	

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time /Date	Permit Effective Date
Village of Cuba municipal offices are located at 16B East Cordova Ave, Cuba, New Mexico 87013. Directions to the WWTP from US 550: Take state highway NM 197 west, travel approximately 2 miles. Sandoval County.	~1035 hours / 04/11/2016	November 1, 2015
	Exit Time/Date ~1415 hours / 04/11/2016	Permit Expiration Date October 31, 2020

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
-Vandora P. Casados / Clerk / Village of Cuba / 575-289-3864
-Ester Herrera / Water & Sewer Department, Village of Cuba / 575-289-2020
-Antonio Crespin, Supervisor, WW2 Operator / Village of Cuba / 575-289-2020, cell 505-288-1728
-Pamela Ramirez, WW2 Operator / Village of Cuba

Other Facility Data
Approximate Location of Outfall
Latitude: 35.99313°
Longitude: -106.98294°

SIC 4952

Name, Address of Responsible Official/Title/Phone and Fax Number
Honorable Mark Hatzenbuhler, Mayor / Village of Cuba / P.O. Box 426, Cuba, New Mexico 87013-0426 / 575-289-3864 and fax 575- 289-3769

Contacted: Yes [X] No [ ]

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

U	Permit	S	Flow Measurement	M	Operations & Maintenance	N	CSO/SSO
U	Records/Reports	U	Self-Monitoring Program	U	Sludge Handling/Disposal	N	Pollution Prevention
M	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
U	Effluent/Receiving Waters	U	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

1. See attached report and further explanations.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Erin S. Trujillo */s/Erin S. Trujillo*	**NMED/SWQB/505-827-0418**	**05/13/2016**
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Sarah Holcomb */s/Sarah Holcomb*	**NMED/SWQB/505-827-2798**	**05/13/2016**

Village of Cuba – WWTP – April 20, 2016	PERMIT NO. **NM0024848**

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☐ S ☐ M ☒ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS: **2015 Permit does not have a compliance schedule.**

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. ☒ Y ☐ N ☐ NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES. ☐ Y ☐ N ☒ NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. **Outfall latitude/longitude** ☐ Y ☒ N ☐ NA

4. ALL DISCHARGES ARE PERMITTED. **Discharges are prohibited from April 1 through October 31** ☐ Y ☒ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☐ M ☒ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS: **Permittee has not submitted a NetDMR subscriber agreement. Reviewed submitted DMRs after last CEI on 02/06/2015 (January thru December 2015). Permittee does not submit approved DMR formats.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. **See further explanations for TN & TSS errors** ☐ Y ☒ N ☐ NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. ☐ S ☐ M ☒ U ☐ NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. **pH & Dissolved Oxygen (DO) time** ☐ Y ☒ N ☐ NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING ☒ Y ☐ N ☐ NA

c) ANALYTICAL METHODS AND TECHNIQUES. **DO method = No; DO techniques = Yes** ☐ Y ☒ N ☐ NA

d) RESULTS OF ANALYSES AND CALIBRATIONS. **pH** ☒ Y ☐ N ☐ NA

e) DATES AND TIMES OF ANALYSES. **pH & DO time** ☐ Y ☒ N ☐ NA

f) NAME OF PERSON(S) PERFORMING ANALYSES. ☒ Y ☐ N ☐ NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. ☐ S ☒ M ☐ U ☐ NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. **No written SOP schedule** ☐ S ☒ M ☐ U ☐ NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. ☒ Y ☐ N ☐ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS: **Influent flume gage missing lower measurement marks. UV disinfection operating, but monitoring sensors not.**

1. TREATMENT UNITS PROPERLY OPERATED. ☒ S ☐ M ☐ U ☐ NA

2. TREATMENT UNITS PROPERLY MAINTAINED. **Slight algal growth observed** ☐ S ☒ M ☐ U ☐ NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. ☒ S ☐ M ☐ U ☐ NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. ☒ S ☐ M ☐ U ☐ NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. ☒ S ☐ M ☐ U ☐ NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **On-site operator level of certification not adequate** ☐ S ☐ M ☒ U ☐ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. ☒ S ☐ M ☐ U ☐ NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. **Plant = Yes; Newly installed terminal = Pending** ☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **Procedures & schedules = Yes; Written = No** ☐ Y ☒ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **Written = No** ☐ Y ☒ N ☐ NA

Village of Cuba – WWTP – April 20, 2016	PERMIT NO. **NM0024848**

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?	☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?	☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	☐ Y ☐ N ☒ NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?	☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	☐ Y ☐ N ☒ NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*
DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. **DO**	☐ Y ☒ N ☐ NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. **DO**	☐ Y ☒ N ☐ NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **Not documented**	☐ Y ☒ N ☐ NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE.	☐ Y ☒ N ☐ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	☒ Y ☐ N ☐ NA
b) PROPER PRESERVATION TECHNIQUES USED.	☒ Y ☐ N ☐ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **pH & DO holding times = Not documented**	☐ Y ☒ N ☐ NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	☒ Y ☐ N ☐ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**)*
DETAILS: **See further explanations Section C (O&M) for written SOPs for calibration checks.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.	☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **Tracom, Inc., extra large 60° V trapezoidal flume w/ ultrasonic level sensor**	
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	☒ Y ☐ N ☐ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	☒ Y ☐ N ☐ NA
4. CALIBRATION FREQUENCY ADEQUATE. **Last calibration April 2015**	☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. **Check procedures/results not documented**	☐ Y ☒ N ☐ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	☒ Y ☐ N ☐ NA
6. HEAD MEASURED AT PROPER LOCATION.	☒ Y ☐ N ☐ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	☒ Y ☐ N ☐ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**)*
DETAILS: **Contract laboratories not inspected. DO and pH analyzed on site.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES).* **pH & DO not documented**.	☐ Y ☒ N ☐ NA

Village of Cuba – WWTP – April 20, 2016	PERMIT NO. **NM0024848**

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☐ Y ☒ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. **Not documented for DO** ☐ S ☒ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **See further explanations.** ☐ S ☐ M ☒ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **0** % OF THE TIME. **See further explanations** ☐ Y ☒ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **100% (on-site pH) / 100% (contract lab)** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME	**1) Hall Environmental**	**2) Sea Crest Group**
LAB ADDRESS	**4901 Hawkins NE, Albuquerque, NM 87109**	**500 S. Arthur Ave., Unit 450, Louisville, CO 80027**
PARAMETERS PERFORMED	**Aluminum, TN, TP, BOD5, TSS, Ammonia**	**WET**

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	**None**	**None**	**None**	**Slight Foam**	**None**	**None**	**None**

RECEIVING WATER OBSERVATIONS: **Flow from effluent pipe outlet is not at the main channel of the Rio Puerco.**

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*

DETAILS: **Sludge stored in on-site lagoons/Lagoons not used for wastewater treatment. Phase II construction not complete.**

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☒ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: **Not Applicable** (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☐ N ☒ NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE ___ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

Village of Cuba WWTP
Compliance Evaluation Inspection
NPDES Permit No. NM0024848
April 20, 2016
Further Explanations

Introduction

On April 20, 2016, a Compliance Evaluation Inspection (CEI) was conducted by Erin S. Trujillo, accompanied by Jennifer Foote and Daniel Valenta, both of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) at the Village of Cuba Waste Water Treatment Plant (WWTP) located on state highway NM 197 approximately 2 miles southwest of Cuba, New Mexico in Sandoval County. Village of Cuba WWTP is classified as a minor municipal facility discharger, with a design flow of 0.144 million gallons per day (MGD), under the federal Clean Water Act, Section 402 National Pollutant Discharge Elimination System (NPDES) permit program and is assigned permit No. NM0024848.

Receiving Water and TMDL Information

The permit authorizes discharges to the Rio Puerco in Segment 20.6.4.131 New Mexico Administrative Code (NMAC) Standards for Interstate and Intrastate Surface Waters of the Rio Grande Basin. The Rio Puerco has the following designated uses: warmwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact.

In the USEPA Approved 2014-2016 State of New Mexico CWA §303(d)/§305(b) Integrated List & Report dated November 18, 2014, the Rio Puerco from the confluence of Arroyo Chijuilla upstream to the northern boundary of Cuba (Assessment Unit NM-2107.A_40) assessment unit is listed as not supporting warmwater aquatic life. The listed causes are sedimentation/siltation, nutrient/eutrophication, aluminum and ammonia. In the Final Draft of the 2016 – 2018 State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated Report, the aluminum listing is proposed to be removed as there were no exceedances of the applicable total recoverable aluminum water quality criteria.

Total Daily Maximum Daily Load (TMDL) waste load allocations (WLAs) for total nitrogen (TN) and total phosphorus (TP); and implementation options for TP, TN and total ammonia were prepared in 2007. The TMDL is available at https://www.env.nm.gov/swqb/RioPuerco2/RioPuercoTMDL-Part2.pdf. A seasonal daily (monthly) average implementation option was based on technologically achievable concentrations provided for an extended aeration treatment system (TP of 1.0 mg/L, TN of 10.0 mg/L, and ammonia of 1.0 mg/L or less). As described in the TMDL, a year-round discharge, which was not authorized in the NPDES permit, would have required the Permittee to build an advanced tertiary WWTP (e.g. one that has both biological and chemical treatment processes) to meet lower TP and TN limitations (e.g., TP of 0.447 lbs/day 30-day average, 0.375 mg/L 30-day average, and 0.56 mg/L daily max; and TN of 1.36 lbs/day 30-day average, 1.13 mg/L 30-day average, and 1.7 mg/L daily max). In the NPDES permit, discharge was prohibited from April 1 thru October 31, a period described in the TMDL as when instream biological activity is generally at it's highest due to higher temperatures and longer periods of daylight. In the NPDES permit, daily maximum effluent concentrations were calculated as the technological achievable concentration monthly average multiplied by a factor of 1.5 (i.e., TP = 1.5 mg/L, TN = 15 mg/L, and ammonia = 1.5 mg/L).

Inspection Details

NMED performs a certain number of CEIs for the U.S. Environmental Protection Agency (USEPA) each year. The purpose of this inspection is to provide USEPA with information to evaluate the permittee's compliance with the NPDES permit. This report is based on review of files maintained by the permittee and NMED, on-site observation by NMED personnel, and verbal information provided by the permittee's representatives.

Upon arrival at approximately 1035 hours at the Village of Cuba Municipal Offices on the day of the inspection, Ms. Trujillo, lead inspector, made introductions, presented credentials to Ms. Vandora P. Casados, Clerk and Mr. Antonio Crespin, Supervisor, Level 2 Wastewater (WW2) Operator, both of Village of Cuba and explained the purpose of the inspection. The NMED inspectors, Mr. Crespin, Ms. Pamela Ramirez, WW2 Operator, and Mayor Mark Hatzenbuhler, Village of Cuba toured the WWTP. Additional recordkeeping information was obtained from Ms. Ester Herrera, Village of Cuba following the tour. Ms. Trujillo conducted an exit interview to discuss preliminary findings of the inspection with Ms. Casados, Mr. Crespin, Ms. Herrera and when available Mayor Hatzenbuhler. The inspectors left the Village offices following the exit interview at approximately 1415 hours on the day of the inspection.

Treatment Scheme

Village of Cuba had an estimated population of 731 as of July 1, 2014 (Source http://factfinder.census.gov/). According to the Permittee's NPDES application, the WWTP serves approximately 350. On-site operators on the day of this CEI described that the plant currently serves approximately 350 residential and 35 business connections. The WWTP has two certified Level 2 wastewater operators and one maintenance person. An off-site certified Level 3 wastewater operator prepares discharge monitoring reports (DMRs). Operators described checking the plant twice on Saturdays and Sundays.

Raw sewage enters the plant via an approximately 5 mile long collection system. Flow is transported by gravity with one lift station. The Aero-Mod Extended treatment plant constructed in 2013 is an activated sludge process utilizing a sequential oxidation (SEQUOX) biological nutrient removal process. The plant consists of a bar screen, grit tank, two first and second stage aeration tanks A& B, two secondary clarifiers and ultraviolet (UV) disinfection. Influent enters the headworks and manual bar screen, flows through a flume and ultrasonic flow meter, and then enters the grit tank. Flow is then split into two trains of aeration basins (activation basins) where aerobic and anaerobic phases occur. After the activation basins, wastewater enters the secondary clarifiers and then passes through UV disinfection basin. Return Activated Sludge (RAS) is sent from the secondary clarifiers back to the aeration basins. Waste Activated Sludge (WAS) is sent to the solids thickeners then to the old plant's lagoon system for storage. Flow is measured with a flume and ultrasonic flow meter prior to discharge to the Rio Puerco. After the UV system, treated effluent enters a pipe, and then flows approximately 300 feet to an outlet. The effluent pipe outlet is approximately 370 feet west of the main channel of Rio Puerco (See Figure 1).

Compliance History

After the Phase I construction of the WWTP in 2013, the Permittee has been under an enforcement action that would eliminate discharge from April 1 thru October 31 each year for past effluent violations. USEPA Docket No. CWA-06-2015-1732 dated March 16, 2015 states:

A. …shall accomplish the following tasks and comply with the following schedule of activities:

1. *Complete design of the Phase 2 construction project by July 31, 2015. The Phase 2 project will store and transfer effluent to a land application site where the Village will grow crops to utilize the water and nutrients in the WWTP effluent. The Phase 2 project will also enable the Village to discontinue flow to the Rio Puerco during the summer months.*

2. *Complete construction of the Phase 2 project by February 28, 2016.*

B. *…shall submit a Project Completion Report...by April 30, 2016.*

The Permittee's March 1, 2015 NPDES application, Page 3 of 21, states *"The WWTP does not currently land-apply treated wastewater but plans to in the future."* Based on information from the Permittee on-site representatives, Phase 2 design had not been completed by July 31, 2015 or by the day of this CEI.

Phase 2 construction was not complete by February 28, 2016 or the day of this inspection. Funding for design and construction of Phase 2 has not been obtained by the Village.

Figure 1 – Plant and Discharge Location

Sludge Handling

The old plant had a series of sludge drying sand filters that are no longer in use. Accumulated sludge is stored in four lined lagoons (two passive and two that can be aerated). The Permittee's March 1, 2015 NPDES application, Attachment 2, states *"…biosolids will soon be consolidated into a single aerated lagoon and will ultimately be dried and land-applied."* Funding for design and construction of Phase 2, which is also planned to include facilities for sludge management, has not been obtained by the Village.

Note: The following sections are arranged according to the format of the enclosed EPA Inspection Checklist, rather than being ranked in order of importance.

Section A - Permit Verification - Overall rating of "Unsatisfactory"

Permit Requirements

Some effluent limitations and monitoring conditions of the 2010 Permit changed in the 2015 Permit. Excerpts from Part I.A.1 final effluent limits of the 2010 Permit corrected September 13, 2010 are in Attachment A of this CEI Report. Excerpts from Part I.A.1 of the 2015 Permit effective November 1, 2015 are in Attachment B of this CEI Report.

Part I.A.1 of the 2010 and 2015 Permits state "*Discharges are prohibited through months from April 1 through October 31 each year.*"

Findings for Permit Verification

- Observed discharge was not authorized. Permittee continues to discharge on and after April 1, 2016 and on the day of this CEI.

- Outfall location is incorrect on Permits. The Signature Authorization page of the Permit describes the location as Latitude 35° 59' 35" North, Longitude 106° 59' 13" West, which is also the location indicated on Page 5 of 21 of the Permittee's 2015 NPDES application, which is near the entrance of the facility. The following is the approximate location of the effluent pipe outlet above the Rio Puerco:

	Degrees, Minutes, Seconds Latitude, Longitude	Decimal Degrees Latitude, Longitude
Approximate Location	35° 59' 35" N, 106° 58' 58"W	35.99313°, -106.98294°

Comments for Permit Verification

- Seasonally derived TN, TP and total ammonia effluent limitations would not be applicable when discharge is not authorized from April 1, 2016 through October 31. See further explanations in Section B of this CEI report.

- Contributing industries conditions in the 2010 Permit were not included in the 2015 Permit. Part II of the 2010 Permit had conditions for contributing industries that, among other things, are intended to help ensure effluent quality and plant performance of a small publically-owned treatment works (POTW). The condition language (see Attachment C of this CEI report) was not included in copies of the 2015 Permit. The Permittee can consider these and/or similar contributing industry requirements when instituting pollution prevention conditions required in Part I.E of the 2015 Permit. See further explanations in Section C of this CEI report.

Section B - Recordkeeping and Reporting Evaluation - Overall rating of "Unsatisfactory"

Part I.C.1 (Monitoring and Reporting) of the 2010 Permit states:

a. The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge.
b. Monitoring information shall be on Discharge Monitoring Report Form(s) EPA 3320-1 as specified in Part III.D.4 of this permit and shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.
c. Reporting periods shall end on the last day of the months March, June, September, and December.
d. The permittee is required to submit regular quarterly reports as described above postmarked no later than the 28th day of the month following each reporting period.

Part I.C.6 (Copy of Reports and Application to NMED) of the 2010 Permit states *"The permittee shall send a copy of discharge monitoring reports (DMRs), all other reports required in the permit, as well as a copy of application for permit renewal to New Mexico Environment Department at the mailing address listed in Part III of the permit."*

Part I.C of the 2015 Permit states:

> **C. MONITORING AND REPORTING (MINOR DISCHARGERS)**
>
> Monitoring results must be reported to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats. Monitoring results can be submitted electronically in lieu of the paper DMR Form. To submit electronically, access the NetDMR website at www.epa.gov/netdmr and contact the R6NetDMR@epa.gov in-box for further instructions. Until you are approved for Net DMR, you must report on the Discharge Monitoring Report (DMR) Form EPA. No. 3320-1 in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when submitting paper form EPA No. 3320-1, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and other agencies as required (See Part III.D.IV of the permit). Reports shall be submitted quarterly.
>
> 1. Reporting periods shall end on the last day of the months March, June, September, and December.
>
> 2. The permittee is required to submit regular quarterly reports as described above postmarked no later than the 28th day of the month following each reporting period.

Part III.D.7.a (...Reporting) of the 2010 and 2015 Permits state *"…The report shall contain the following information: (1) A description of the noncompliance and its cause; (2) The period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and, (3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge."*

Part III.D.8 (Other Noncompliance) of the 2010 and 2015 Permits state *"The permittee shall report all instances of noncompliance not reported under Parts III.D.4 and D.7 …at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.7."*

Findings for Recordkeeping and Reporting

- DMRs appear to have been submitted late. **This is a Repeat Finding**.

  Additional Notes: The 1st, 3rd and 4th quarter 2015 DMRs (see * below) appear to have been submitted late:

	Postmark Due	NMED Received
Jan, Feb, Mar 2015 (1st Qtr 2015)*	April 28, 2015	July 10, 2015
Apr, May, Jun 2015 (2nd Qtr 2015)	July 28, 2015	July 27, 2015
Jul, Aug, Sept 2015 (3rd Qtr 2015)*	October 28, 2015	December 24, 2015
Oct, Nov, Dec 2015 (4th Qtr 2015)*	January 28, 2015	March 28, 2016

- DMRs submitted by Permittee were not updated, were not an electronic or paper approved format, and did not include all required monitoring calculations or results of the 2010 or 2015 Permits.

  Additional Notes: Reviewed January, February and March 2015 DMRs under the 2010 Permit continued to not include effluent limitations for TN, TP and ammonia which became effective September 1, 2013. **This is a Repeat Finding**.

  Total Aluminum and Dissolved Aluminum monitoring which became required effective September 1, 2013 of the 2010 Permit were not submitted on or with the DMRs.

  November and December 2015 monthly DMRs continued to not include effluent limitations for TN, TP and ammonia; increased TN, TP and ammonia frequency of analysis; and changes to pH and E.coli bacteria limits in the 2015 Permit.

Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS) percent (%) removal calculation results requied by the 2015 Permit were not submitted on or with the November and December 2015 DMRs.

Quarterly electronic or paper approved DMR formats with monitoring periods provided by USEPA will also be needed to report Dissolved Oxygen (DO) monitoring per the 2015 Permit.

Annual Whole Effluent Toxicity (WET) DMRs do not appear to have been submitted per Part I.A.1 Footnote 4 and II.E of the 2010 Permit.

Additional WET Notes: Permittee did not provide requested documentation during or following this inspection that WET DMRs, which would be labeled TX1Y, were submitted to USEPA with copy to NMED per the 2010 Permit. Reviewed NMED files do not have copies of WET DMRs after 2007. A DMR records pull from USEPA database indicates that annual toxicity DMRs were not received for the following monitoring periods 09/01/2012 to 08/31/2013 (3rd year of 2010 Permit); 09/01/2013 to 08/31/2014 (4th year of 2010 Permit); and 09/01/2014 to 08/31/2015 (5th year of 2010 Permit).

The Permittee will need to contact the USEPA Region 6 to obtain electronic or paper approved DMR formats.

- TSS and TN concentration and loading reported on the November 2015 DMR was not consistent with reviewed recordkeeping.

Additional Notes: Reviewed Loading/Quantity Worksheet recordkeeping was not consistent with contract laboratory analytical results for November 2015 TSS and TN concentrations, as follows:

TSS Highest 7-Day Avg Concentration

Sample Collection	TSS Lab Result	TSS Worksheet	TSS Nov 2015 DMR	TSS 7-Day Avg concentration
11/04/2015	ND (<4.0 mg/L)	<1 mg/L	<1 mg/L	<4.0 mg/L
11/18/2015	ND (<4.0 mg/L)	<1 mg/L		

TN Daily Max Concentration

Sample Collection	TN Lab Result	TN Worksheet	TN Nov 2015 DMR	TN Daily Max concentration
11/04/2015	1.4 mg/L	1.1 mg/L	4.0 mg/L	6.4 mg/L
11/18/2015	6.4 mg/L	4.2 mg/L		

Therefore, TSS and TN concentrations and associated average and loading calculations reported by the Permittee on the November 2015 DMR were incorrect. In addition to checking the November 2015 data, the Permittee should compare contract laboratory analytical results and detection limits with submitted DMRs for other possible TSS transcription errors (e.g., December 2015, August 2015, and April 2015) and additional incorrect TN calculations. Part I.A.1 of the 2015 Permit Footnote *9 states *"Total Nitrogen is defined as Total Kjeldahl Nitrogen plus Nitrate and Nitrite."* Reviewed Loading/Quantity Worksheet recordkeeping showed that only Total Kjeldahl Nitrogen (TKN) results were used on worksheet calculations and DMRs. **Revised** DMRs will need to be submitted to USEPA with copy to NMED using approved formats.

- Reporting for Total Residual Chlorine (TRC) was missing or inconsistent on reviewed DMRs submitted by the Permittee.

Additional Notes: For example, submitted October, November and December 2015 Previously submitted DMRs indicated "N/D" or "NA." Part I.A.1 Footnote *3 of the 2015 Permit states *"TRC shall be meaasured duirng periods when chlorine is used as either backup bacteria control or when*

disinfection of plant treatment equipment is required." The Permittee can contact USEPA R6 compliance and/or NetDMR staff for approved comment code options on paper or electronic DMRs.

- Reporting of TP effluent results or limit exceedance on the February 2015 DMR appears is inconsistent. Permittee will need to submit **Revised** DMRs with corrected and/or missing values to USEPA with copy to NMED using approved formats.

  Additional Notes: Permittee reported TP values of 1 lbs/day 30-day average loading, and 1 mg/L 30-day average concentration. Daily max was missing. One exceedance was marked on the form. In Part I.A.1 of the 2010 Permit, TP effluent limits are 1.2 lbs/day 30-day average loading, 10 mg/L 30-day average concentration, and 1.5 mg/L (daily max concentration) which according to the results on the form were not exceeded.

- Non-compliance reports (e.g., reported effluent exceedances, discharge that occurs during periods prohibited by the Permit) were not submitted per Part III.D.7 and 8 of the 2010 Permit.

- Further explanations for pH and DO recordkeeping is in Section D Self Monitoring and Section F Laboratory of this CEI Report.

Comments on Electronic Reporting

- As stated in the 2015 CEI report and discussed during the exit interview of this CEI with Permittee representatives, USEPA is encouraging Permittees to transition from submitting paper DMRs to the elecronic reporting NetDMR system. Information on the NetDMR training can be found at http://epa.gov/netdmr/about/training.html. Following this CEI, USEPA Region 6 contacts for compliance and electronic reporting using NetDMR were provided to permittee representatives by e-mail on April 26, 2016.

Section C - Operations and Maintenance - Overall rating of "Marginal"; Permittee Has Not Provided Adequate Certified Operators - Rating of "Unsatisfactory"

Both the 2010 and 2015 Permits had Pollution Prevention Requirements. Part I.E of the 2015 Permit states:

E. POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute a program within 12 months of the effective date of the permit (or continue an existing one) directed towards optimizing the efficiency and extending the useful life of the facility. The permittee shall consider the following items in the program:

a. The influent loadings, flow and design capacity;

b. The effluent quality and plant performance;

c. The age and expected life of the wastewater treatment facility's equipment;

d. Bypasses and overflows of the tributary sewerage system and treatment works;

e. New developments at the facility;

f. Operator certification and training plans and status;

g. The financial status of the facility;

h. Preventative maintenance programs and equipment conditions and;

i. An overall evaluation of conditions at the facility.

Part III.B.3 (Proper Operation and Maintenance) of the 2010 and 2015 Permits state:

a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures....

b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

Findings of Operations and Maintenance

- Permittee representatives described that a Pollution Prevention Requirement program required in the 2010 Permit and Part I.E of the 2015 Permit was not available in written form.

- Influent flume gage was missing the lower measurements marks (see Photo Log).

- A crate was installed after the headworks in the basin labeled grit tank on plans submitted with the Permittee's 2015 application (see Photo Log). The crate collects both solids and grit according to the on-site operator supervisor. Collected solids in the crate appear to need more frequent removal and proper disposal. Larger solids can damage or adversely affect plant equipment performance.

- Floating solids were observed in the secondary clarifier (See Photo Log).

- Slight algal growth was observed on the sides of the open channel at the UV system (See Photo Log). Algal growth that dislodges into the effluent can adversely affect effluent quality--increase TSS monitoring results.

- All lamp banks of the UV disinfection system were operating, but the system monitoring display and one set of lamp status lights for the UV system (see Photo Log) were not working.

- Operation and maintenance (O&M) manuals were not readily available at the WWTP for the newly installed monitoring terminal. The Permittee should obtain a copy of the O&M manual or confirm that a copy of an on-line manual for the *Allen-Bradley Planel View Plus 1000* is sufficient from the installer.

- Standard operating procedures (SOPs) and schedules for plant operation, laboratory equipment maintenance, repair, and equipment life were not established in written form. Flow measurement check schedules and procedures to assure flow measurement is properly operating between yearly calibration and record keeping were not established in written form.

  Additional Notes: On-site operators described and kept logs showed that WWTP process control measurements and equipment usage were recorded. Written SOPs on when schedules for maintenance or repair was not provided or not readily available during this CEI. O&M manuals may have additional information to develop or compile written SOPs and schedules.

- Procedures for emergency treatment control (e.g., overflows, spills, power outages, maintenance or backup use of chlorine, de-chlorination, TRC monitoring, etc.) were not established in written form.

- Permittee's on-site Level 2 WW operator supervisor stated that he did not currently have the sufficient level of certification for operation required under the State of New Mexico Utility Operator Certification Program.

  Additional Notes: State of New Mexico utility operator certification regulations are available on-line at http://164.64.110.239/nmac/parts/title20/20.007.0004.pdf. As defined in 20.7.4.L NMAC *"…the term "operate" does not include the operation of monitoring equipment from a distantly remote location."* For more information and contacts for questions about the Utility Operator Certification Program (UOCP) that administers Water and Wastewater Operators at all public water and wastewater utilities in New Mexico is available at https://www.env.nm.gov/swqb/UOCP/.

Section D - Self-Monitoring - Overall rating of "Unsatisfactory" and Section F - Laboratory - Overall rating of "Unsatisfactory"

Permit Requirements for Self-Monitoring and Laboratory

Part III.F.22 (Definitions, Municipal Terms) states "*f. 3-HOUR COMPOSITE SAMPLE consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow."*

Part III.C.2 (Representative Sampling) states *"Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity."*

Part III, Section C.4 (Record Contents) of the 2010 and 2015 Permits state:

Records of monitoring information shall include:
a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) and time(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

Part III.C.5 of the 2010 and 2015 Permits state:

a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.

b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.

c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

Findings for Self-Monitoring and Laboratory Analysis

Excerpts from USEPA approved methods 40 CFR 136.3 are in Attachment D of this CEI report.

pH

- Recordkeeping for pH monitoring (benchsheets) did not include time of sampling; and did not include time of analyses. Therefore, it was not documented that pH sample type met Part I.A.1 requirements

of the 2010 Permit or 2015 Permit, in this case *"Instantaneous Grab."* Part I.A.1 Footnote *5 of the 2015 Permit states *"Analyzed within 15 minutes of collection."* Also, approved holding times in 40 CFR 136.3 Table II state "*Analyze within 15 minutes."*

- Permittee did not have a readily available copy of the pH method shown on benchsheets on the day of this inspection.

  Additional Information: pH bench sheets listed Method I-1586.85 (USGS) using 10 buffer in place of 9. Approved methods in 40 CFR 136.3 (See Attachment D) Table IA Footnote 2 states *"Methods for Analysis of Inorganic Substances in Water and Fluvial Sediments, Techniques of Water-Resource Investigations of the U.S. Geological Survey, Book 5, Chapter A1., unless otherwise stated. 1989. USGS."*

DO

- Part I.A.1 of the 2015 permit requires DO monitoring at a frequency of once per quarter (1/qtr). Part I.A.1 Footnote *6 states *"Sample shall be collected at entrance of the Rio Puerco and field kit (probe) can be used to measure."*

  DO monitoring was not measured and analyzed at location specified in permit. Permittee representatives described that samples collected for DO monitoring are collected at the effluent flume and analyzed in the on-site laboratory daily. The sample collection and analysis location may not be adequate for representative samples.

- Recordkeeping for DO measurements did not include time of sampling, and time of analyses. Therefore, it was not documented that DO sample type met Part I.A.1 requirements of the 2015 Permit, in this case *"Instantaneous Grab."* Part I.A.1 Footnote *5 of the 2015 Permit states *"Analyzed within 15 minutes of collection."*

- Table II in 40 CFR 136.3 require glass sample container for DO monitoring. Use of glass containers was not documented.

- Reviewed recordkeeping for DO measurements did not include approved method. Permittee did not have a readily available copy of an approved DO method on the day of this inspection.

- Reviewed recordkeeping for DO instrument calibration included date, time, and measurement reading and techniques. The DO instrument manual was not readily available at the WWTP laboratory on the day of this CEI.

  On-line YSI Model 55 Dissolved Oxygen and Temperature System Operations Manual states *"The LCD will prompt you to enter the approximate salinity of the water you are about to analyze. You can enter any number from 0 to 40 parts per thousand (PPT) of salinity."* Written techniques on benchsheets did not document the approximate salinity. The manual stated *"If you are not certain what the salinity of the sample water is, use a YSI Model 30 Salinity-Conductivity-Temperature meter to determine it."*

- In-situ field measurements would require additional temperature documentation. The on-line manual also stated *"For best results…Calibrate at a temperature within ±10°C of the sample temperature."* Temperature of the sample was not recorded on the reviewed calibration bench sheets.

Composite Flow

- Part I.A.1 of the 2010 and 2015 Permits require 3-hour composite sample type for TP, TN, Total Ammonia, and WET monitoring. Flow proportioned samples were not obtained when required by permit. Flow during each grab sample while compositing would need to be recorded and used in calculating sample volumes.

Quality Control Procedures

- Overall quality control procedures did not appear adequate, for example:
  - Permittee did not have specific written sample collection and analysis procedures in written form (e.g., sample containers, holding times, in situ field measurements, composite flow calculations, etc.)
  - Permittee did not have readily available copies of pH, DO, and if needed TRC, approved methods for on-site monitoring.
  - Permittee's contract laboratory report for November 2015 did not provide method approval dates to verify that the use of USEPA approved analytical procedures in 40 CFR 136.3 were used.

    Additional Notes: As one example, the method used for E.coli bacteria analysis on the contract laboratory report dated December 9, 2015 (samples collected 11/4/2015) was Standard Method 9223B. Approved methods in 40 CFR 136.3 Table IA for E.coli (see Federal Register, Vol. 77, No. 97, Friday, May 18, 2012, Rules and Regulations) include Standard Methods 9223B-2004. SM 22nd Edition contains the 9223B-2004 approved method.
  - Duplicate samples were not submitted to contract laboratories as a check of sampling and analytical performance. According to EPA's NPDES Inspection Manual, *"10 percent of the samples should be duplicated."*

Section G - Effluent/Receiving Waters Observations - Overall rating of "Unsatisfactory"

- TSS 30-day average (37 mg/L) and 7-day average (69 mg/L) concentrations were reported in July 2015 to have exceeded effluent limitations, 30 and 45 mg/L, respectively. TSS permit limitations were not seasonally derived.
- Permittee continues to discharge when prohibited.
- On the day of this inspection, discharge at the effluent pipe was clear with slight white foam (see Photo Log).

Section H - Sludge Disposal - Overall rating of "Unsatisfactory"

- Part IV (Minor, Sewage Sludge Requirements) of the 2010 and 2015 Permits include elements and sections that apply to sludge reuse or disposal practice. The Permittee stores sludge in on-site lagoons. Lagoons are no longer used for wastewater treatment. Compliance with Part IV Element (Sludge Disposal) of the 2010 and 2015 Permits is not documented. The Permittee has not constructed facilities to dewater and dry sewage sludge for land application.

NMED/SWQB Official Photograph Log Photo # 1		
Photographer: Erin S. Trujillo	Date: 04/20/2016	Time: 1105 hours (corrected)
City/County: Village of Cuba / Sandoval County		State: New Mexico
Location: Village of Cuba WWTP, MM 2 SH 197, Cuba, NM		
Subject: Arrow points to missing portion of influent flume gage.		

NMED/SWQB Official Photograph Log Photo # 2		
Photographer: Erin S. Trujillo	Date: 04/20/2016	Time: 1111 hours (corrected)
City/County: Village of Cuba / Sandoval County		State: New Mexico
Location: Village of Cuba WWTP, MM 2 SH 197, Cuba, NM		
Subject: Crate installed after the headworks in the basin labeled grit tank on plans submitted with the Permittee's 2015 application.		

NMED/SWQB Official Photograph Log Photo # 3		
Photographer: Erin S. Trujillo	Date: 04/20/2016	Time: 1121 hours (corrected)
City/County: Village of Cuba / Sandoval County		State: New Mexico
Location: Village of Cuba WWTP, MM 2 SH 197, Cuba, NM		
Subject: Floating solids were observed in one of the two secondary clarifier basins (southern basin)		

NMED/SWQB Official Photograph Log Photo # 4		
Photographer: Daniel Valenta	Date: 04/20/2016	Time: 1124 hours
City/County: Village of Cuba / Sandoval County		State: New Mexico
Location: Village of Cuba WWTP, MM 2 SH 197, Cuba, NM		
Subject: Algal growth was observed on the sides of the open channel following the UV system.		

NMED/SWQB Official Photograph Log Photo # 5		
Photographer: Daniel Valenta	Date: 04/20/2016	Time: 1125 hours
City/County: Village of Cuba / Sandoval County		State: New Mexico
Location: Village of Cuba WWTP, MM 2 SH 197, Cuba, NM		
Subject: Arrow points to UV lamp status lights that were out.		

NMED/SWQB Official Photograph Log Photo # 6		
Photographer: Erin S. Trujillo	Date: 04/20/2016	Time: 1129 hours(corrected)
City/County: Village of Cuba / Sandoval County		State: New Mexico
Location: Village of Cuba WWTP, MM 2 SH 197, Cuba, NM		
Subject: White foam and algal growth was observed at the effluent flume.		

NMED/SWQB Official Photograph Log Photo # 7		
Photographer: Erin S. Trujillo	Date: 04/20/2016	Time: 1139 hours (corrected)
City/County: Village of Cuba / Sandoval County		State: New Mexico
Location: Village of Cuba WWTP, MM 2 SH 197, Cuba, NM		
Subject: White foam was observed in channel below effluent pipe outlet. Arrow points to outlet.		

Attachment A
Part I.A.1 Final Effluent Limits of the 2010 Permit, corrected September 13, 2010

1. Final Effluent limits – 0.144 MGD design flow

During the period beginning on the date of three years from the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from outfall serial number 001. Discharges are prohibited through months from April 1 through October 31 each year. Discharges from November 1 through March 31 each year shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted (*1)				
POLLUTANT	STORET CODE	30-DAY AVG	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	***	***	***	Continuous	Totalizing Meter
Biochemical Oxygen Demand, 5-day	00310	36	54	30	45	N/A	2/Month	Grab
Total Suspended Solids	00530	36	54	30	45	N/A	2/Month	Grab
E. Coli Bacteria (*2)	51040	N/A	N/A	548	N/A	2507	2/Month	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	N/A	19 ug/l (*3)	Daily	Instantaneous Grab (*2)
Total Nitrogen	00600	12	N/A	10	N/A	15	1/ 2-Week	3-Hr Composite
Total Phosphorus	00665	1.2	N/A	1.0	N/A	1.5	1/ 2-Week	3-Hr Composite
Total Ammonia	00610	Report	N/A	1.0	N/A	1.5	1/ 2-Weeks	3-Hr Composite
Total Aluminum	01105	N/A	N/A	Report	N/A	Report	1/Month	3-Hr Composite
Dissolved Aluminum	01106	N/A	N/A	Report	N/A	Report	1/Month	3-Hr Composite

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.6	8.8	Daily	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY TESTING (7-Day Static Non-Renewal) (*4)	30-DAY AVG MINIMUM	7-DAY MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Ceriodphnia dubia	Report	Report	1/Year	3-Hr Composite
Pimephales promelas	Report	Report	1/Year	3-Hr Composite

FOOTNOTES:

1. See Part II.A. for instructions to achieve Minimum Quantification Levels and report.
2. Colonies/100 ml.
3. The effluent limitation for TRC is the instantaneous maximum and can not be averaged for reporting purposes.
4. See Part II.E. Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

Attachment B
Part I.A.1 of the 2015 Permit effective November 1, 2015

PART I – REQUIREMENTS FOR NPDES PERMITS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. OUTFALL 001 - FINAL Effluent Limits – 0.144 MGD Design Flow

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated domestic wastewater from Outfall 001 to the Rio Puerco, in Segment 20.6.4.131 of the Rio Grande River Basin. Discharges are prohibited through months from April 1 through October 31 each year. Discharges from November 1 through March 31 each year shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
POLLUTANT	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6 s.u.	9.0 s.u.	5/week	Instantaneous Grab (*5)

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	lbs/day, unless noted		mg/l, unless noted (*1)				
POLLUTANT	30-DAY AVG	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report MGD	Report MGD	N/A	N/A	N/A	Daily	Totalized
BOD_5	36	54	30	45	N/A	2/Month	Grab
TSS	36	54	30	45	N/A	2/Month	Grab
BOD_5 % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	1/Month	Calculation
TSS % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	1/Month	Calculation
E. coli bacteria	N/A	N/A	126 cfu/100 ml	N/A	410 cfu/100 ml	2/Month	Grab
TRC	N/A	N/A	N/A	N/A	11 ug/l (*4)	Daily (*3)	Instantaneous Grab (*5)
DO (*6)	N/A	N/A	N/A	N/A	Report	1/Quarter	Instantaneous Grab (*5)
Total Phosphorus	1.2	N/A	1.0	N/A	1.5	1/Week	3-hr Composite
Total Nitrogen (*9)	12	N/A	10	N/A	15	1/Week	3-hr Composite
Total Ammonia	Report	N/A	1.0	N/A	1.5	1/Week	3-hr Composite

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY TESTING 7-DAY CHRONIC NOEC FRESHWATER (*7)	30-DAY AVG	7-DAY MINIMUM	MEASUREMENT FREQUENCY (*8)	SAMPLE TYPE
Ceriodaphnia dubia	Report	Report	Once/year	3-hr Composite
Pimephales promelas	Report	Report	Once/year	3-hr Composite

Footnotes:

*1 See **Appendix A of Part II** of the permit for minimum quantification limits.
*2 Percent removal is calculated using the following equation:
[average monthly influent concentration (mg/l) – average monthly effluent concentration (mg/l)] ÷[average monthly influent concentration (mg/l)] x 100.
*3 TRC shall be measured during periods when chlorine is used as either backup bacteria control or when disinfection of plant treatment equipment is required.
*4 The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
*5 Analyzed within 15 minutes of collection.
*6 Sample shall be collected at entrance of the Rio Puerco and field kit (probe) can be used to measure.
*7 Monitoring and reporting requirements begin on the effective date of this permit. See Part II of the permit for WET testing requirements for additional WET monitoring and reporting conditions.
*8 The test shall take place between November 1 and April 30. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple failures. However, upon failure of any WET test, the permittee must report the results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification of the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.
*9 Total Nitrogen is defined as Total Kjeldahl Nitrogen plus Nitrate and Nitrite. Analyses shall be in accordance with 40 CFR 136.

Attachment C
Contributing Industries Conditions from 2010 Permit

C. CONTRIBUTING INDUSTRIES

1. The following pollutants may not be introduced into the treatment facility:

a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;

b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works are specifically designed to accommodate such discharges;
c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;
d. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;
e. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;
f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and
h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Act, including any requirements established under 40 CFR Part 403.

3. The permittee shall provide adequate notice of the following:

a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Act if it were directly discharging those pollutants; and
b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Any notice shall include information on (i) the quality and quantity of effluent to be introduced into the treatment works, and (ii) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

Attachment D

40 CFR 136.3 Excerpts (*Oval Shape added to Highlight Parameter*)

TABLE IB—LIST OF APPROVED INORGANIC TEST PROCEDURES—Continued

Parameter	Methodology[58]	EPA[52]	Standard methods	ASTM	USGS/AOAC/Other
17. Chlorine–Total residual, mg/L	Amperometric direct		4500–Cl D–2000	D1253–08.	
	Amperometric direct (low level)		4500–Cl E–2000.		
	Iodometric direct		4500–Cl B–2000.		
	Back titration ether end-point[15]		4500–Cl C–2000.		
	DPD–FAS		4500–Cl F–2000.		
	Spectrophotometric, DPD		4500–Cl G–2000.		
	Electrode				See footnote.[16]
28. Hydrogen ion (pH), pH units	Electrometric measurement		4500–H^+ B–2000	D1293–99 (A or B)	973.41,[3] I–1586–85.[2]
	Automated electrode	150.2 (Dec. 1982)[1]			See footnote,[21] I–2587–85.[2]
46. Oxygen, dissolved, mg/L	Winkler (Azide modification)		4500–O B–2001, C–2001, D–2001, E–2001, F–2001.	D888–09 (A)	973.45B[3], I–1575–78.[8]
	Electrode		4500–O G–2001	D888–09 (B)	I–1576–78.[6]
	Luminescence Based Sensor.			D888–09 (C)	See footnote[63] See footnote.[64]

Environmental Protection Agency **§ 136.3**

TABLE II—REQUIRED CONTAINERS, PRESERVATION TECHNIQUES, AND HOLDING TIMES—Continued

Parameter number/name	Container[1]	Preservation[2 3]	Maximum holding time[4]
25. Fluoride	P	None required	28 days.
27. Hardness	P, FP, G	HNO_3 or H_2SO_4 to pH <2.	6 months.
28. Hydrogen ion (pH)	P, FP, G	None required	Analyze within 15 minutes.
31, 43. Kjeldahl and organic N	P, FP, G	Cool, ≤6 °C[18], H_2SO_4 to pH <2.	28 days.
Table IB—Metals:[7]			
18. Chromium VI	P, FP, G	Cool, ≤6 °C[18], pH = 9.3–9.7[20].	28 days.
35. Mercury (CVAA)	P, FP, G	HNO_3 to pH <2	28 days.
35. Mercury (CVAFS)	FP, G; and FP-lined cap[17].	5 mL/L 12N HCl or 5 mL/L BrCl[17].	90 days.[17]
3, 5–8, 12, 13, 19, 20, 22, 26, 29, 30, 32–34, 36, 37, 45, 47, 51, 52, 58–60, 62, 63, 70–72, 74, 75. Metals, except boron, chromium VI, and mercury.	P, FP, G	HNO_3 to pH <2, or at least 24 hours prior to analysis[19].	6 months.
38. Nitrate	P, FP, G	Cool, ≤6 °C[18]	48 hours.
39. Nitrate-nitrite	P, FP, G	Cool, ≤6 °C[18], H_2SO_4 to pH <2.	28 days.
40. Nitrite	P, FP, G	Cool, ≤6 °C[18]	48 hours.
41. Oil and grease	G	Cool to ≤6 °C[18], HCl or H_2SO_4 to pH <2.	28 days.
42. Organic Carbon	P, FP, G	Cool to ≤6 °C[18], HCl, H_2SO_4, or H_3PO_4 to pH <2.	28 days.
44. Orthophosphate	P, FP, G	Cool, to ≤6 °C[18 24]	Filter within 15 minutes; Analyze within 48 hours.
46. Oxygen, Dissolved Probe	G, Bottle and top	None required	Analyze within 15 minutes.